

SEQUENCE LISTING

<110> Neil H. Riordan

<120> METHOD AND COMPOSITION FOR PREVENTING OR  
REDUCING EDEMA, DEEP VEIN THROMBOSIS AND/OR PULMONARY EMBOLISM

<130> AIDAN.005A

<140> unknown

<141> 2003-08-22

<150> 60/468948

<151> 05/07/03

<160> 7

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 274

<212> PRT

<213> Bacillus Subtilis

<400> 1

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1 5 10 15  
His Ser Gln Gly Tyr Thr Gly Ser Asn Val Lys Val Ala Val Ile Asp  
20 25 30  
Ser Gly Ile Asp Ser Ser His Pro Asp Leu Asn Val Arg Gly Gly Ala  
35 40 45  
Ser Phe Val Pro Ser Glu Thr Asn Pro Tyr Gln Asp Gly Ser Ser His  
50 55 60  
Gly Thr His Val Ala Gly Thr Ile Ala Ala Leu Asn Asn Ser Ile Gly  
65 70 75 80  
Val Leu Gly Val Ala Pro Ser Ala Ser Tyr Ala Val Lys Val Leu Asp  
85 90 95  
Ser Thr Gly Ser Gly Gln Tyr Ser Trp Ile Ile Asn Gly Ile Glu Trp  
100 105 110  
Ala Ile Ser Asn Asn Met Gly Val Ile Asn Met Ser Leu Gly Gly Pro  
115 120 125  
Ser Gly Ser Thr Ala Leu Lys Thr Val Val Asp Lys Ala Val Ser Ser  
130 135 140  
Gly Ile Val Val Ala Ala Ala Ala Gly Asn Glu Gly Ser Ser Gly Ser  
145 150 155 160  
Ser Ser Thr Val Gly Tyr Pro Ala Lys Tyr Pro Ser Thr Ile Ala Val  
165 170 175  
Gly Ala Val Asn Ser Ser Asn Gln Arg Ala Ser Phe Ser Ser Ala Gly  
180 185 190  
Ser Glu Leu Asp Val Met Ala Pro Gly Val Ser Ile Gln Ser Thr Leu  
195 200 205  
Pro Gly Gly Thr Tyr Gly Ala Tyr Asn Gly Thr Ser Met Ala Thr Pro  
210 215 220  
His Val Ala Gly Ala Ala Ala Leu Ile Leu Ser Lys His Pro Thr Trp  
225 230 235 240

Thr Asn Ala Gln Val Arg Asp Arg Leu Glu Ser Thr Ala Thr Tyr Leu  
 245 250 255  
 Gly Asn Ser Phe Tyr Tyr Gly Lys Gly Leu Ile Asn Val Gln Ala Ala  
 260 265 270  
 Ala Gln

<210> 2  
 <211> 381  
 <212> PRT  
 <213> *Bacillus Subtilis*

<400> 2  
 Met Arg Ser Lys Lys Leu Trp Ile Ser Leu Leu Phe Ala Leu Thr Leu  
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 Ile Phe Thr Met Ala Phe Ser Asn Met Ser Ala Gln Ala Ala Gly Lys  
 20 25 30  
 Ser Ser Thr Glu Lys Lys Tyr Ile Val Gly Phe Lys Gln Thr Met Ser  
 35 40 45  
 Ala Met Ser Ser Ala Lys Lys Asp Val Ile Ser Glu Lys Gly Gly  
 50 55 60  
 Lys Val Gln Lys Gln Phe Lys Tyr Val Asn Ala Ala Ala Ala Thr Leu  
 65 70 75 80  
 Asp Glu Lys Ala Val Lys Glu Leu Lys Lys Asp Pro Ser Val Ala Tyr  
 85 90 95  
 Val Glu Glu Asp His Ile Ala His Glu Tyr Ala Gln Ser Val Pro Tyr  
 100 105 110  
 Gly Ile Ser Gln Ile Lys Ala Pro Ala Leu His Ser Gln Gly Tyr Thr  
 115 120 125  
 Gly Ser Asn Val Lys Val Ala Val Ile Asp Ser Gly Ile Asp Ser Ser  
 130 135 140  
 His Pro Asp Leu Asn Val Arg Gly Gly Ala Ser Phe Val Pro Ser Glu  
 145 150 155 160  
 Thr Asn Pro Tyr Gln Asp Gly Ser Ser His Gly Thr His Val Ala Gly  
 165 170 175  
 Thr Ile Ala Ala Leu Asn Asn Ser Ile Gly Val Leu Gly Val Ala Pro  
 180 185 190  
 Ser Ala Ser Leu Tyr Ala Val Lys Val Leu Asp Ser Thr Gly Ser Gly  
 195 200 205  
 Gln Tyr Ser Trp Ile Ile Asn Gly Ile Glu Trp Ala Ile Ser Asn Asn  
 210 215 220  
 Met Asp Val Ile Asn Met Ser Leu Gly Gly Pro Thr Gly Ser Thr Ala  
 225 230 235 240  
 Leu Lys Thr Val Val Asp Lys Ala Val Ser Ser Gly Ile Val Val Ala  
 245 250 255  
 Ala Ala Ala Gly Asn Glu Gly Ser Ser Gly Ser Thr Ser Thr Val Gly  
 260 265 270  
 Tyr Pro Ala Lys Tyr Pro Ser Thr Ile Ala Val Gly Ala Val Asn Ser  
 275 280 285  
 Ser Asn Gln Arg Ala Ser Phe Ser Ser Val Gly Ser Glu Leu Asp Val  
 290 295 300  
 Met Ala Pro Gly Val Ser Ile Gln Ser Thr Leu Pro Gly Gly Thr Tyr  
 305 310 315 320  
 Gly Ala Tyr Asn Gly Thr Ser Met Ala Thr Pro His Val Ala Gly Ala  
 325 330 335  
 Ala Ala Leu Ile Leu Ser Lys His Pro Thr Trp Thr Asn Ala Gln Val

340	345	350
Arg Asp Arg Leu Glu Ser Thr Ala Thr Tyr Leu Gly Ser Ser Phe Tyr		
355	360	365
Tyr Gly Lys Gly Leu Ile Asn Val Gln Ala Ala Ala Gln		
370	375	380

<210> 3  
 <211> 381  
 <212> PRT  
 <213> *Bacillus Subtilis*

<400> 3			
Met Arg Ser Lys Lys Leu Trp Ile Ser Leu Leu Phe Ala Leu Thr Leu			
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Ile Phe Thr Met Ala Phe Ser Asn Met Ser Ala Gln Ala Ala Gly Lys			
20	25	30	
Ser Ser Thr Glu Lys Lys Tyr Ile Val Gly Phe Lys Gln Thr Met Ser			
35	40	45	
Ala Met Ser Ser Ala Lys Lys Asp Val Ile Ser Glu Lys Gly Gly			
50	55	60	
Lys Val Gln Lys Gln Phe Lys Tyr Val Asn Ala Ala Ala Ala Thr Leu			
65	70	75	80
Asp Glu Lys Ala Val Lys Glu Leu Lys Lys Asp Pro Ser Val Ala Tyr			
85	90	95	
Val Glu Glu Asp His Ile Ala His Glu Tyr Ala Gln Ser Val Pro Tyr			
100	105	110	
Gly Ile Ser Gln Ile Lys Ala Pro Ala Leu His Ser Gln Gly Tyr Thr			
115	120	125	
Gly Ser Asn Val Lys Val Ala Val Ile Asp Ser Gly Ile Asp Ser Ser			
130	135	140	
His Pro Asp Leu Asn Val Arg Gly Gly Ala Ser Phe Val Pro Ser Glu			
145	150	155	160
Thr Asn Pro Tyr Gln Asp Gly Ser Ser His Gly Thr His Val Ala Gly			
165	170	175	
Thr Ile Ala Ala Leu Asn Asn Ser Ile Gly Val Leu Gly Val Ala Pro			
180	185	190	
Ser Ala Ser Leu Tyr Ala Val Lys Val Leu Asp Ser Thr Gly Ser Gly			
195	200	205	
Gln Tyr Ser Trp Ile Ile Asn Gly Ile Glu Trp Ala Ile Ser Asn Asn			
210	215	220	
Met Asp Val Ile Asn Met Ser Leu Gly Gly Pro Thr Gly Ser Thr Ala			
225	230	235	240
Leu Lys Thr Val Val Asp Lys Ala Val Ser Ser Gly Ile Val Val Ala			
245	250	255	
Ala Ala Ala Gly Asn Glu Gly Ser Ser Gly Ser Thr Ser Thr Val Gly			
260	265	270	
Tyr Pro Ala Lys Tyr Pro Ser Thr Ile Ala Val Gly Ala Val Asn Ser			
275	280	285	
Ser Asn Gln Arg Ala Ser Phe Ser Ser Val Gly Ser Glu Leu Asp Val			
290	295	300	
Met Ala Pro Gly Val Ser Ile Gln Ser Thr Leu Pro Gly Gly Thr Tyr			
305	310	315	320
Gly Ala Tyr Asn Gly Thr Ser Met Ala Thr Pro His Val Ala Gly Ala			
325	330	335	
Ala Ala Leu Ile Leu Ser Lys His Pro Thr Trp Thr Asn Ala Gln Val			
340	345	350	

Arg	Asp	Arg	Leu	Glu	Ser	Thr	Ala	Thr	Tyr	Leu	Gly	Asn	Ser	Phe	Tyr
355															365
Tyr	Gly	Lys	Gly	Leu	Ile	Asn	Val	Gln	Ala	Ala	Ala	Gln			
370															380

<210> 4  
 <211> 381  
 <212> PRT  
 <213> **Bacillus Subtilis**

<400> 4															
Met	Arg	Ser	Lys	Lys	Leu	Trp	Ile	Ser	Leu	Leu	Phe	Ala	Leu	Thr	Leu
1															15
Ile	Phe	Thr	Met	Ala	Phe	Ser	Asn	Met	Ser	Ala	Gln	Ala	Ala	Gly	Lys
															30
Ser	Ser	Thr	Glu	Lys	Lys	Tyr	Ile	Val	Gly	Phe	Lys	Gln	Thr	Met	Ser
															45
Ala	Met	Ser	Ser	Ala	Lys	Lys	Lys	Asp	Val	Ile	Ser	Glu	Lys	Gly	Gly
															50
Lys	Val	Gln	Lys	Gln	Phe	Lys	Tyr	Val	Asn	Ala	Ala	Ala	Ala	Thr	Leu
															65
Asp	Glu	Lys	Ala	Val	Lys	Glu	Leu	Lys	Lys	Asp	Pro	Ser	Val	Ala	Tyr
															85
Val	Glu	Glu	Asp	His	Ile	Ala	His	Glu	Tyr	Ala	Gln	Ser	Val	Pro	Tyr
															100
Gly	Ile	Ser	Gln	Ile	Lys	Ala	Pro	Ala	Leu	His	Ser	Gln	Gly	Tyr	Thr
															115
Gly	Ser	Asn	Val	Lys	Val	Ala	Val	Ile	Asp	Ser	Gly	Ile	Asp	Ser	Ser
															130
His	Pro	Asp	Leu	Asn	Val	Arg	Gly	Gly	Ala	Ser	Phe	Val	Pro	Ser	Glu
															145
Thr	Asn	Pro	Tyr	Gln	Asp	Gly	Ser	Ser	His	Gly	Thr	His	Val	Ala	Gly
															165
Thr	Ile	Ala	Ala	Leu	Asn	Asn	Ser	Ile	Gly	Val	Leu	Gly	Val	Ala	Pro
															180
Ser	Ala	Ser	Leu	Tyr	Ala	Val	Lys	Val	Leu	Asp	Ser	Thr	Gly	Ser	Gly
															195
Gln	Tyr	Ser	Trp	Ile	Ile	Asn	Gly	Ile	Glu	Trp	Ala	Ile	Ser	Asn	Asn
															210
Met	Asp	Val	Ile	Asn	Met	Ser	Leu	Gly	Gly	Pro	Thr	Gly	Ser	Thr	Ala
															225
Leu	Lys	Thr	Val	Val	Asp	Lys	Ala	Val	Ser	Ser	Gly	Ile	Val	Val	Ala
															245
Ala	Ala	Ala	Gly	Asn	Glu	Gly	Ser	Ser	Gly	Ser	Thr	Ser	Thr	Val	Gly
															260
Tyr	Pro	Ala	Lys	Tyr	Pro	Ser	Thr	Ile	Ala	Val	Gly	Ala	Val	Asn	Ser
															275
Ser	Asn	Gln	Arg	Ala	Ser	Phe	Ser	Ser	Val	Gly	Ser	Glu	Leu	Asp	Val
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Met	Ala	Pro	Gly	Val	Ser	Ile	Gln	Ser	Thr	Leu	Pro	Gly	Gly	Thr	Tyr
															305
Gly	Ala	Tyr	Asn	Gly	Thr	Ser	Met	Ala	Thr	Pro	His	Val	Ala	Gly	Ala
															325
Ala	Ala	Leu	Ile	Leu	Ser	Lys	His	Pro	Thr	Trp	Thr	Asn	Ala	Gln	Val
															340
Arg	Asp	Arg	Leu	Glu	Ser	Thr	Ala	Thr	Tyr	Leu	Gly	Asn	Ser	Phe	Tyr
															345
															350

355	360	365										
Tyr	Gly	Lys	Gly	Leu	Ile	Asn	Val	Gln	Ala	Ala	Ala	Gln
370							375					380

<210> 5  
<211> 1327  
<212> DNA  
<213> *Bacillus Subtilis*

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<400> 5
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atgcacagaa tagtcttttta agtaagtctta ctttgcattttttaaaagga gagggtaaag 180
agtgagaagc aaaaaattgt ggatcagctt gtgtttgcg ttaacgttaa tctttacgt 240
ggcggttcagc aacatgtctg cgcaggctgc cgaaaaaagc agtacagaaa agaaatacat 300
tgtcggattt aagcagacaa tggatgcattt gaggccat gagttccgc aagaaaaagg atgttatttc 360
tggaaaaaggc ggaaagggttc aaaagcaatt taagtatgtt aacgcggccg cagcaacattt 420
ggatgaaaaaa gctgtaaaag aattgaaaaaa agatccgagc gttgcataatg tggagaaga 480
tcatattgca catgaatatg cgcacatctgt tccttatggc atttctcaaa ttaaagcgc 540
ggctcttcac tctcaaggctt acacaggctc taacgtaaaaa gtagctgtta tgcacagcgg 600
aattgactct tctcatcctg actttaaacgtt cagaggcggg gcaagcttcg tccctctga 660
aacaacccca taccaggacg gcagttctca cgttacgcatttgcgcggta cgattgcgc 720
tcttaataaac tcaatcggtt ttctggcgtt agcgccaagc gcatcattat atgcagtaaa 780
agtgcgttgc tcaacaggaa gggccaaata tagctggattt attaacggca ttgagttggc 840
catttccaaac aatatggatg ttatcaacat gagccttggc ggacctactg gttctacagc 900
gctgaaaaca gtagttgata aagcggttcc cagcggtatc gtcgttgctg ccgcagccgg 960
aaacgaaggt tcatccggaa gcacaagcac agtccggctac cctgcggaaat atccttctac 1020
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tgagcttgc tgaatggctc ctggcggttc catccaaagc acacttcctg gaggcactt 1140
ccggcgctt aacggAACGT ccatggcgac tccctacgtt gccggagcag cagcgctaat 1200
tctttctaaac caccggactt ggacaaacgc gcaagtcgtt gatcgtttag aagcactgc 1260
aacataacctt ggaagctttt tctactatgg aaaagggtta atcaacgtac aagcagctgc 1320
acaataa 1327

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<210> 6  
<211> 825  
<212> DNA  
<213> *Bacillus Subtilis*

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gacttaaacg tcagaggcgg agcaagcttc gtaccttctg aaacaacccc ataccaggac 180
ggcagttctc acgtacgca tgtagccggt acgattgccg ctcttaataa ctcacatcggt 240
gttctggcgc tagcgcctaa cgcacatcatta tatgcagtaa aagtgcgttga ttcaacaggaa 300
agcggccaaat atagctggat tattaacggc attgaatggg ccatttccaa caatatgggt 360
gttattaaaca tgagcctcg cgaccccttct ggttctacag cgctgaaaac agtgcgttgc 420
aaagccgtt ccagcggtat cgtcgttgct gccgctgcag gaaacgaagg ttctgtccgg 480
agctcaagca cagtcggcta ccctgcaaaa tatccttcta ctattgcggt aggtgcggta 540
aacagcagca accaaagagc ttcatctca agcgcaggtt ctgagcttga tggatggct 600
cctggcgtat ccatccaaag cacacttctt ggaggcactt acgggtctta caacggcagc 660
tccatggcga ctccctcacgt tgccggagca gcagcgctaa ttctttctaa gcatccgact 720
tggacttaacg cacaagtcgg tgatcgttta gaaagcactg caacatatct tggaaactct 780
ttctactatg gaaaagggtt aatcaacgtt caagcagctg caca 825
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<210> 7

<211> 1146  
<212> DNA  
<213> *Bacillus Subtilis*

<400> 7

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gtcggattta agcagacaat gagtgcctatg agttccgcctt agaaaaaggaa tgttatttct 180  
gaaaaaggcg gaaagggttca aaagcaattt aagtatgtt aacgcggccgc agcaacattt 240  
gatgaaaaag ctgtaaaaga attgaaaaaa gatccgagcg ttgcataatgtt ggaagaagat 300  
catattgcac atgaatatgc gcaatctgtt ctttatggca tttctcaat taaagcgccg 360  
gctcttcact ctcaaggctt cacaggctt aacgtaaaag tagctgtt aacgcggca 420  
attgactctt ctcatcctga cttaaacgtc agaggcggag caagcttgcgt tccttctgaa 480  
acaaacccat accaggacgg cagttctcac ggtacgcattt tcgcgggtac gattgccgct 540  
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gtgcttgatt caacaggaag cgccaaatattt agctggattt ttaacggcat tgagtggcc 660  
atttccaaca atatggatgt tatcaacatg agccttggcg gacctactgg ttctacagcg 720  
ctgaaaacag tagttgataa agcggtttcc agcggtatcg tcgttgcgtc cgccggca 780  
aacgaagggtt catccggaag cacaaggcaca gtcggctacc ctgcaaaata tccttctact 840  
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gagcttgcgtg taatggctcc tggcgtgtcc atccaaagca cacttcctgg aggcaacttac 960  
ggcgcttata acggaacgtc catggcgact cctcacgtt ccggagcagc agcgctaattt 1020  
ctttctaagc acccgacttg gacaaacgcg caagtcgtt atcggtttaga aagcaactgca 1080  
acatatctt gaaactcttt ctactatggaa aaagggtttaa tcaacgtaca agcagctgca 1140  
caataa 1146

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